

Date: Fri, 16 Jul 93 08:09:08 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #863  
To: Info-Hams

Info-Hams Digest                      Fri, 16 Jul 93                      Volume 93 : Issue 863

## Today's Topics:

(none)  
6 Meter Telephone RFI  
Amateur BBS in Northern VA ?  
Communities that unduly restrict Amateur Radio operations  
CW, CW everywhere!!! (2 msgs)  
CW continued.  
ICOM W2A MODS  
Mac software for Morse Code?  
Opinions of Heathkit gear (2 msgs)  
part number needed for Motorola service manual  
Range? Portable Transceivers 2 Watt. (2 msgs)  
TS50  
Undeliverable Mail

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Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

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We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 16 Jul 93 17:59:29 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: (none)  
To: info-hams@ucsd.edu

Thanks for the responce about MPF102 replacement...  
I am posting a (usefull I think) summary.

73 de George (SV3CHA)

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Hi, George...If memory serves me, I believe the 2N4416 is a suitable drop-in replacement for the MPF102. The QST "Ugly Weekender" project from a decade or so ago uses the 2N4416 in the VFO (if I am recalling correctly); seems like the article noted that an MPF102 could be used instead, but the VFO output would be reduced somewhat.

This is all from memory--I don't have the article in front of me.  
Sorry...

73 de aa0ms

\*\*\*\*\*

I'm a bit baffled by your request. The MPF102 is by far the most commonly available VHF JFET, at least here in the States. There are lots of second sources; it certainly doesn't have to come from Motorola.

Are you having trouble finding it, or are you looking for a similar part for some other application? Most MPF102 applications will work with any small-signal JFET with  $f_t$  above 500 MHz or so.

73 de ke9tv/2, Kevin KENNY      GE Corporate R&D, Niskayuna, New York, USA

\*\*\*\*\*

Almost any jfet will work.

Even the pack of 10 on a card from 'rat shit shack' will usually work as an mpf102.

Most of them are good to about 10 mhz, but you need to check the biasing resistor on each and every one, since tolerances are HUGE.

Bob

\*\*\*\*\*

Hi...I was able to get them from Radio Shack! I also got a replacement... I'll try to look up the number in my handbook tonight.

Anyway, after I got a replacement part from a mail-order place, I found one in a Radio Shack in Santa Fe. It is a standard stock item....

-Tom  
KJ5LT

\*\*\*\*\*

The MPF102 was the "economy" version of an RF N-Channel J-FET, as I recall. I've searched my Motorola literature, and can find no reference to it any more recent than 1974.

A better transistor of that generation, that is still available, is the 2N4416A. It is in a metal can instead of the plastic case, and has higher gain than the MPF102. Another transistor that may be useful is the 2N3821. I'm not familiar with it, but it is listed along with the 2N4416A, in the 1992 issue of the Motorola "Master Selection Guide".

73, Fred, K4DII

\*\*\*\*\*

The 2N4416 is similar and more tightly specified. It's a good replacement choice.

Roy Lewallen, W7EL

\*\*\*\*\*

Well, you could try using a ... MPF102! They are easily found, and currently manufactured. Check Digi-key, or Jameco, or Mouser, or DC Electronics, or... you get the idea. You might even be able to still get them from Radio Shark.

73,

Chuck Harris - WA3UQV  
chuck@eng.umd.edu

\*\*\*\*\*

Gee, I haven't had any trouble finding it until now.

Anyway, it depends some on the application. Devices with similar specs include:

2N5457-2N5459 (VHF)  
2N5484-2N5486 (general purpose)  
2N4416 (RF)  
J308-J310  
NTE/ECG 451-452

No guarantees that any of them will be a plug-in direct replacement in any given application, but some creative reading of the specs should allow you to adapt the circuit.

Some of these have a higher gain-bandwidth product than the MPF102, so you may need to add some impedance to the gate lead to suppress VHF/UHF parasitics, depending on the circuit layout.

73 de ke9tv/2, Kevin

\*\*\*\*\*

The NTE replacement for the MPF-102 is the NTE451;  
J Fet N-Ch. VHF/UHF amp, T092  
Cheers;  
Howard Anders

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Date: 16 Jul 1993 13:09:17 GMT  
From: pa.dec.com!kali.enet.dec.com!wade@decwrl.dec.com  
Subject: 6 Meter Telephone RFI  
To: info-hams@ucsd.edu

>Article 41751 of rec.radio.amateur.misc:

>From: seeler@UPEI.CA (David Seeler)

>Subject: 6 Meter Telephone RFI

>

>I have a quick question about 6 Meter interference to a telephone. I have  
>the ARRL handbook and RFI book as well as the info from the server and I am  
>slowly going through that information. I hope that the problem can be  
>solved with the info that is there.

>Situation:

>

>Sun eve - was on 6 working Michigan stations when my neighbour  
>came over and said that I was audible in two of their phones ( they have 7 -  
>hopefully not bad news ). I stopped operating and went to the books. I have  
>a game plan in mind as per the ARRL recommendations but have one primary  
>question:

>

>Has anyone found any particular filter or solution particularly helpful for  
>6 meter or VHF RFI ? Suggestions are welcome.

I had some trouble with some of my phones and some of my neighbors on 6 and 2 meters. cured it with a large toroid in the phone cord right at the phone - just unplugged the phone from the wall, wrapped the cord through the toroid half a dozen times, secured it with ty-wraps, and plugged the cord back in. toroid selection was that the hole had to be big enough to get a modular phone plug through. same trick helped on the power cord of a VCR.

I run several hundred watts on 6 and 2, and the toroids cured all but the cordless phone, with its 49 MHz receiver. I convinced her that a reasonable compromise was not to use the cordless phone when 6 meters was open!

>I am also getting into their FM baby monitor ( it operates at 49.99 Mhz )  
>but I am less hopeful of solving that one due to its probable WIDE Front  
>end - but will try.

HOPELESS! you might try hinting about what they are broadcasting to the neighborhood...

>My ground is about 3 meters from the rig ( as close as I can get), on  
>the same side of my house as the neighbour. Would a 1/4 wave counterpoise  
>on the rig help?

3 meters from ground is a shorted half-wave, equivalent to a 1/4 wave counterpoise. anyway, on VHF, ground wires are only for electrical safety.

>Please direct comments to Seeler@UPEI.ca - as I will be on vacation for the  
>next 3 weeks. Hope it is time spent operating - not fixing.

73

paul N1BWT

-----  
Date: 15 Jul 93 11:15:21 EDT  
From: lll-winken.llnl.gov!iggy.GW.Vitalink.COM!wetware!spunky.RedBrick.COM!  
psinntp!psinntp!pbs!jernandez@ames.arpa  
Subject: Amateur BBS in Northern VA ?  
To: info-hams@ucsd.edu

Can someone please list the phone numbers for BBS dedicated to amateur radio in the Northern VA/Washington DC area ?

Thanks  
John  
KA2YAP

-----  
Date: Fri, 16 Jul 93 00:26:01 GMT  
From: mercury.hsi.com!a3bee2!cyphyn!randy@uunet.uu.net  
Subject: Communities that unduly restrict Amateur Radio operations  
To: info-hams@ucsd.edu

NO! wait! before you kill the thread!

This anti antenna business...you're talking about towers with beams?

Or does it include simple pole like ants...like ...oh..Antron 10 mtrs?

I wonder if a SINGLE dark colour wire run from house , out to a tree, like for 80 mtrs or like for SWL uses.....just a wire...no bright white baluns nor 1/2 thick coax....

Something like that, would be reason to drop a rock on someone?

====

IF thats the case, then they dont NEED us ! ( well thats my 1st reaction )

I would tho like to know just how far 'they' go in i.d. ing somthing as an antenna.

And, can we compare notes on 'low visabilty antennas' , rather than get each other burning on this issue?

Oh...count me in on joining forces....what do I do?

Randy. KA1UNW

-----  
Date: Thu, 15 Jul 1993 22:53:07 GMT  
From: usc!howland.reston.ans.net!sol.ctr.columbia.edu!news.kei.com!das.wang.com!  
wang!dbushong@network.UCSD.EDU  
Subject: CW, CW everywhere!!!  
To: info-hams@ucsd.edu

Lotus\_Mail\_Exchange\_at\_702\_\_HUB@sceng.UB.COM writes:

>The other day I was out in my backyard picking blackberries (concentrating  
>on not getting stuck by the thorns), and up pops into my head "S...S...S..."  
>A string of about 7 "S"s.

>Surprised by this sudden infusion of letters from wherever (or whomever),  
>I started to consciously listen to the surroundings, and I heard this bird  
>up in a tree going,

> "Tweet Tweet Tweet"

>So obviously I copied these as the letter "S." I've been doing too much  
>CW, I guess. I was too ashamed to tell even my fiancée, who's a no-code  
>Tech, and I thought I'd find some people who might even understand... :-)



Wait til you try to sleep on your front porch and the crickets do a pile-up  
for you , heh heh heh

```
ooo-----ooo
  /
 /
|
{ ~ }
-----      long live long wires!
```

Randy, KA1UNW

-----  
Date: 16 Jul 93 10:27:11 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: CW continued.  
To: info-hams@ucsd.edu

I wonder, are these 'fastest human CW-reader' contests done with random characters, or with plain text?  
Its generally accepted that, with plain language, satisfactory copy can be obtained if something like 40% of the information is never received; for example the letters 'TH' are almost always followed by 'E', and there are certain groups of letters that always occur together in plain text. (g and h for example).  
A true 'fastest human CW-reader' test would be performed using random characters , or, in a language unknown to the reader; anything else is more a test of the receiver's ability to deduce which letter comes next.

As an aside, my mother was trained as a telegraphist at the end of WWII; she could listen to [machine generated] CW in one ear, and type at a mill, while simultaneously holding a phone conversation using the other ear. This really confused some people when she would start reading back the start of a message at the same time as she was copying the end of it...

-Pete Lucas	NERC Computer Services	Swindon	England	
	pjml%swmis.nsw.ac.uk@nsfnet-relay.ac.uk			[Internet]
'Eat the World'	pjml@uk.ac.nsw.swmis			[JANET]
	g6wbj@gb7sdn.gbr.eu			[Packet]

-----  
Date: Thu, 15 Jul 1993 21:16:11 GMT  
From: olivea!charnel!rat!koko.csustan.edu!nic.csu.net!eis.CalState.EDU!  
jherndo@ames.arpa  
Subject: ICOM W2A MODS



To: info-hams@ucsd.edu

To do the extended RX/TX modifications to the ICOM W2A, it takes some pretty tight maneuvering. Are there any places that will do these mods for you? Will ICOM do them..? :)

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[> John W. Herndon - INTERNET: jherndo@eis.calstate.edu <]  
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Date: 16 Jul 1993 13:42:36 GMT

From: sdd.hp.com!math.ohio-state.edu!howland.reston.ans.net!europa.eng.gtefsd.com!

eddie.mit.edu!news.mtholyoke.edu!mhc.mtholyoke.edu!cshepard@network.UCSD.EDU

Subject: Mac software for Morse Code?

To: info-hams@ucsd.edu

Hi!

My apologies if this is not the place to post my question. Thought I would start here...I am looking for Mac compatible software to teach my son (12 yrs) Morse Code. He is interested in getting his license. Can anyone help? Thanks Cyndi (cshepard@mhc.mtholyoke.edu)

-----  
Date: Fri, 16 Jul 1993 12:06:32 GMT

From: hpscit.sc.hp.com!news.dtc.hp.com!col.hp.com!csn!magnus.acs.ohio-state.edu!

math.ohio-state.edu!howland.reston.ans.net!agate!linus!linus.mitre.org!

mwvm.mitre.org!m14494@sdd.hp.com

Subject: Opinions of Heathkit gear

To: info-hams@ucsd.edu

Reading over my previous response about heath rigs, it seems a bit too negative. I've owned one of just about every rig heath ever made, starting with the DX-20. I had loads of fun building and using them, but was always disappointed by their performance. When compared to commercial rigs, they're just not that sensitive, selective or stable. Also, most have few of the features that are now common on modern rigs. I just didn't want to come across as a Heath-basher. Cheers...

Mike, N4PDY

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\* These are my opinions only       \*  
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Date: Fri, 16 Jul 1993 11:59:03 GMT  
From: hpscit.sc.hp.com!news.dtc.hp.com!col.hp.com!csn!magnus.acs.ohio-state.edu!  
math.ohio-state.edu!howland.reston.ans.net!agate!linus!linus.mitre.org!  
mwvm.mitre.org!m14494@sdd.hp.com  
Subject: Opinions of Heathkit gear  
To: info-hams@ucsd.edu

Thomas Jay Pachner writes:

> Does anyone have any advice or opinions on [heathkit rigs]... ?

In my experience, the performance of most heath rigs was marginal at best, even when they're working right. Used ones are often out of alignment or simply broken, and require service and repairs. The good news is that the layout is very open and easy to work on, and the manual is so detailed that you have good chance of fixing it. If you can get a clean one with its manual, you stand a good chance of ending up with a simple but usable rig. Don't pay too much: low end rigs like the HW-100/101 go for around \$100 in clean working order, while later rigs like the SB-102 and 104 go for up to \$150-\$200. Much more than that, and you can get rigs like the Yaesu FT-101 or Kenwood TS-520, both of which are better rigs than most heathkits. Good luck.

\*\*\*\*\*  
\* These are my opinions only       \*  
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Date: Thu, 15 Jul 1993 21:16:52 GMT  
From: phoenix.Princeton.EDU!chinatti@princeton.edu  
Subject: part number needed for Motorola service manual  
To: info-hams@ucsd.edu

Does anyone have the part number for the service manual for a Motorola Radius 16ch VHF-Hi mobile radio (with the optional signalling logic board)? Probably best to e-mail me- I don't think this is generally that interesting... Also, if anyone has one that they wouldn't mind getting rid of, let me know.

Thanks,  
Steve

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Steve Chinatti, EMTA, EECS student, Princeton University, Princeton, NJ  
internet:chinatti@phoenix.Princeton.EDU      bitnet:chinatti@pucc.bitnet

-----  
Date: 15 Jul 93 21:21:19 GMT  
From: gatech!howland.reston.ans.net!sol.ctr.columbia.edu!The-Star.honeywell.com!  
umn.edu!sctc.com!curry@RUTGERS.EDU  
Subject: Range? Portable Transceivers 2 Watt.  
To: info-hams@ucsd.edu

Roughly speaking, what's the effective transmit range  
of those little Handheld Transceivers ( 2 Watt/ 2 Meter )  
in miles ( under optimal conditions? )

Thanks,

Russ Curry  
( curry@sctc.com )

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Date: 16 Jul 93 01:34:27 GMT  
From: att-out!cbfsb!cbnews!cbnewst!cbnewsm!jeffj@RUTGERS.EDU  
Subject: Range? Portable Transceivers 2 Watt.  
To: info-hams@ucsd.edu

In article <1993Jul15.212119.5975@sctc.com> curry@sctc.com (Russ Curry) writes:

>  
>   Roughly speaking, what's the effective transmit range  
>   of those little Handheld Transceivers ( 2 Watt/ 2 Meter )  
>   in miles ( under optimal conditions? )

I've talked twice to hams on Mt. Lassen who were talking on 2 meter  
handhelds as they hiked down the mountain via the 147.060 repeater on  
Mt. Diablo (200+ miles). The range is really determined by line of  
sight conditions. Working repeaters or other hams that are at a  
higher elevation is easy on 1 to 5 watts and the range can be,  
as in the above case, 200 plus miles. Then again, in downtown areas,  
less than 1 mile at times. Hope this helps!

Jeff

--

Jeff Jones   AB6MB		OPPOSE THE NORTH AMERICAN FREE TRADE AGREEMENT!
jeffj@seeker.mystic.com		Canada/USA Free Trade cost Canada 400,000 jobs.
Infolinc BBS 415-778-5929		Want to guess how many we'll lose to Mexico?

Date: 16 Jul 93 11:27:16 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: TS50  
To: info-hams@ucsd.edu

TS-50

Joe wrote the following:

```
>>I haven't had experience myself, but have heard from two different
>>people that it draws about 2 amps on receive, which would make it
      ^^^^^^^^^^^^^^^^^^^^^^^^^^^
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>>less than desirable for backpacking and portable battery-powered
>>operation. I've been misinformed on other things before, though,
>>so you might want to check this out for yourself before taking my
>>second-hand word on it.
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>> -joe
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And I responded yesterday with:

```
>Geez! Mine doesn't draw anywhere near "2 amps on receive"! More
>like .2 maybe (200 milli-amps). Two amps at 12.5 volts would be
>25 watts! Somethings gotta be wrong! Was the radio hot with the
>little fan running perhaps? I recently ran the radio at 50W
>on battery power in Field Day. My battery is a 20amp hour motor-
>cycle battery made by Panasonic; lead acid, but of the sealed
>variety. I completed almost 200 Q's on CW, 40 meters and never did
>have to re-charge the dude! (Note that re-charging from the "mains"
>is not permitted during the Field Day period!)
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>I have set my back-light setting down to mid-range, but I wouldn't
>think that in itself would make that much difference. It might
>draw an amp or so at full audio volume, I haven't checked it. I
>will and post a note with what I find.
```

Here's what I found out last nite, as promised.

Well, its not 2 amps on receive! Mine draws less than 1 amp, when first powered up, no signal present, with audio on full! It's not as low as I thought either, but certainly not 2 amps! It doesn't even get to a full 1 amp with the backlight lamps on full brightness. I just thought of a question though that might make some difference, but with the emphasis on MIGHT. I'm guessing, for sure, but I don't

have the memories fully used up either. Only have about 20 or so  
with stuff in 'em. Wonder if that could influence the power draw?  
I wouldn't think so, but who knows?

73

Paul

WB20YC

odonnellp@mar65.mar.ora.fda.gov

ar..

-----  
Date: 16 Jul 93 12:35:28 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Undeliverable Mail  
To: info-hams@ucsd.edu

GORDON-PROFS.ARMY.MIL unable to deliver following mail to recipient(s):

<LEA1@CARRL>

550 Host 'CARRL' Unknown

\*\* Text of Mail follows \*\*

Received: from GOR1 by GORDON-PROFS.ARMY.MIL (IBM VM SMTP V2R2)  
with BSMTP id 3061; Fri, 16 Jul 93 08:35:27 EDT  
Date: Fri, 16 Jul 93, 08:35:24 EDT  
From: "INFO-HAMS MAILING LIST AND NEWSGROUP"<INFO-HAMS@UCSD.EDU>  
Subject: Info-Hams Digest V93 #862  
To: Userid <LEA1@CARRL.ARMY.MIL>

Received: from ucsd.edu by LEAV-EMH.ARMY.MIL (IBM VM SMTP V2R2) with TCP;  
Fri, 16 Jul 93 07:20:40 CDT

Received: by ucsd.edu; id AA25225  
sendmail 5.67/UCSD-2.2-sun  
Fri, 16 Jul 93 04:30:21 -0700

Errors-To: info-hams-relay@ucsd.edu

Sender: info-hams-relay@ucsd.edu

Precedence: List

Received: by ucsd.edu; id AA25217  
sendmail 5.67/UCSD-2.2-sun

Fri, 16 Jul 93 04:30:19 -0700 for /usr/mail/listhandler info-hams q

Message-Id: <9307161130.AA25217@ucsd.edu>

Date: Fri, 16 Jul 93 04:30:18 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V93 #862

To: Info-Hams@UCSD.EDU

Today's Topics:

Alinco DJ-580 Intermod Reduction  
IC-730 RF Problem

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Thu, 15 Jul 1993 21:24:01 GMT  
From: pacbell.com!well!moon!pixar!mongo!bruce@network.UCSD.EDU  
Subject: Alinco DJ-580 Intermod Reduction  
To: info-hams@ucsd.edu

I got my HT back from Alinco today, after having sent it requesting that  
they modify it to reduce intermod. They turned it around in a week.  
This message was on the shipping invoice:

BRUCE, WE HAVE REPLACED THE R419 AND THE R472 AND PERFORMED  
A GENERAL CHECK ON YOUR UNIT. WE APOLOGIZE FOR ANY INCONVENIENCE!  
IF YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT US.  
THANK YOU. ALINCO ELECTRONICS USA.

So they do more than tweak a potentiometer. I'm assuming these two resistors  
set the gain of amplifiers in the R.F. or first I.F. stages. I left my  
schematic and battery pack at home, so you'll have to wait another day to  
hear how the performance has changed.

Bruce Perens KD60TD

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Date: 16 Jul 93 06:06:43 GMT  
From: haven.umd.edu!cville-srv.wam.umd.edu!thieule@uunet.uu.net  
Subject: IC-730 RF Problem  
To: info-hams@ucsd.edu

i am currently using an Icom 730 with a Pyramid Power Supply (12-15v @ 25A)

and feeding the rig with a random wire thrown out of my bedroom window. The problem that I am having is that on 40m and 20m, i cannot get the rig to put out 100w. The tuner has a built in SWR/Power meter and I can get the SWR below 2:1, but I can't seem to get more than 50w output. Sometimes, however I have been able to crank out all of the 100w. To make matters worse, under some circumstances, I can get a perfect 1:1 match with about 10w output, but when i turn up the juice, the rig immediately turns off when i key the transmitter. I've noticed that the power supply shuts off when i hold down the key.

so now for the question.....what's going on?????!!?!?!?!?!?

oh, yeah, one more important point....I am 30 ft off the ground and the only ground I use is the DC wall ground and a counterpoise as an artificial RF ground.

any suggestion on how to cure this?!?! I would like to run all of 100w because those contesters can get quite impatient with my S1 signal.

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End of Info-Hams Digest V93 #862

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End of Info-Hams Digest V93 #863

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